

Notice of Allowability

Application No.

09/893,588

Examiner

Alonzo Chambliss

Applicant(s)

KUMAMOTO, TAKASHI

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/19/04.
2. ☒ The allowed claim(s) is/are 3,5-10, 13, 14, 16-22, 25, 26, and 28-34.
3. ☒ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☒ hereto or 2) ☐ to Paper No./Mail Date 1/9/03.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 6/22/04.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Alonzo Chambliss
Primary Examiner
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DETAILED ACTION

1. The amendment filed on 4/19/04 has been fully considered and made of record in Paper No. 11.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Plimier on June 22, 2004.

3. The application has been amended as follow:

CLAIMS:

Cancel claims 4, 15, and 27.

In claim 5, line 1, delete " 4 " and insert instead -- 3 --;

In claim 6, line 1, delete " 4 " and insert instead -- 3 --;

In claim 7, line 1, delete " 4 " and insert instead -- 3 --;

In claim 8, line 1, delete " 4 " and insert instead -- 3 --;

In claim 9, line 1, delete " 4 " and insert instead -- 3 --;

In claim 10, line 1, delete " 4 " and insert instead -- 3 --;

In claim 16, line 1, delete " 4 " and insert instead -- 13 --;

In claim 17, line 1, delete " 4 " and insert instead -- 13 --;

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In claim 18, line 1, delete " 4 " and insert instead -- 13 --;

In claim 19, line 1, delete " 4 " and insert instead -- 13 --;

In claim 20, line 1, delete " 4 " and insert instead -- 13 --;

In claim 21, line 1, delete " 4 " and insert instead -- 13 --;

In claim 22, line 1, delete " 4 " and insert instead -- 13 --;

In claim 28, line 1, delete " 4 " and insert instead -- 25 --;

In claim 29, line 1, delete " 4 " and insert instead -- 25 --;

In claim 30, line 1, delete " 4 " and insert instead -- 25 --;

In claim 31, line 1, delete " 4 " and insert instead -- 25 --;

In claim 32, line 1, delete " 4 " and insert instead -- 25 --;

In claim 33, line 1, delete " 4 " and insert instead -- 25 --;

In claim 34, line 1, delete " 4 " and insert instead -- 25 --.

Allowable Subject Matter

4. The following is a statement of reasons for the indication of allowance subject matter: the prior art of record does not teach or suggest the combination of a support layer on a bumped die or bumped wafer, wherein the support layer has an underfill layer both to provide wafer support and as an underfill material. The underfill layer covering at least a majority of the bump-bodies surface, while leaving a remainder portion of the bump bodies exposed. An adhesive protection tape include a flexible conforming layer applied to the underfill layer, wherein the conforming layer to cover the remainder portion of the bump-bodies not covered by the under-fill layer in claims 3, 13, and 25.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning the communication or earlier communications from the examiner should be directed to Alonzo Chambliss whose telephone number is (703) 306-9143. The fax phone number for the Group is (703) 308-772 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 308-7956.

AC/June 22, 2004

A handwritten signature in black ink, reading "Alonzo Chambliss". The signature is written in a cursive, flowing style with a large initial 'A'.

Alonzo Chambliss
Primary Patent Examiner
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